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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,202	03/11/2002	Yasushi Ueda	MTS-3294US	9517

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EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/980,202	Applicant(s) UEDA ET AL.	
	Examiner Gautam R. Patel	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-10,16-18,20,22-25,27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,12,15,19,21 and 26 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-28-01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-28 are pending for the examination.

Election/Restriction

2. Claims 1-10, 16-18, 20, 22-25 and 27-28 stand withdrawn without traverse.

Claims 1-10, 16-18, 20, 22-25 and 27-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and class as explained before. Election was made without traverse in Paper dated 8-8-05.

NOTE: The Applicants are urged to cancel all non-elected claims.

Specification

3. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

Claim Rejections - 35 U.S.C. § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 26 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claim 26 is drawn to a “program” *per se* as recited and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. data structures not claimed as embodied in computer

Art Unit: 2655

readable medium are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationship between that data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationship between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of programs are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim 26 is also directed to neither a "process" nor a "machine", but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551.

Claim Objections

5. Claim 26 is objected for following reasons.

Claim 26 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim 26 is directed to a program which at the end claims an apparatus of claim 1, making it a hybrid claim.

Corrections are required.

Claim Rejections - 35 U.S.C. § 112

Art Unit: 2655

6. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 26 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 is confusing and unclear. A single claim which claims both an apparatus and the method steps [program steps] of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. In *Ex parte Lyell*, 17 USPQ2d 1548.

Claim Rejections - 35 U.S.C. § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11-12, 15, 19 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishikawa, J.P.O. publication 08-124300 (hereafter Nishikawa) in view of Foland et al., US. patent 6,005,731 (hereafter Foland).

As to claim 11, Nishikawa discloses the invention [A data reproduction apparatus] as claimed [see Figs. 1-2], including a reproduction means, a clock count means, a window generation means and a synchronization signal detection means comprising:

[a] reproduction means [fig. 2, unit 10] of reproducing data recorded in the recording medium;

[a] clock count means [fig. 2, unit 23] of counting clocks based on the data reproduced from said recording medium;

[a] window generation means [fig. 2, unit 20] of estimating the position of a synchronization signal in said reproduced data based on the count value of said clocks and

Art Unit: 2655

generating a synchronization detection window signal having a predetermined width including the estimated position;

[a] synchronization signal detection means [fig. 2, unit 18] of detecting the synchronization signal from the data reproduced from said recording medium by searching within said synchronization detection window [paragraph 27-30, EXAMPLE].

Masahiko discloses all of the above elements, including a window generation means which correct the window width based on the error [clock malfunction; paragraph 13]. Masahiko does not specifically disclose the type of defects causing this error and details normally associated with these kind of defects such as defect detection means.

However, it is well known in the art that almost all errors are associated with some kind of hardware and/or software errors and detection and correction of this is necessary for proper operation the system.

Also Foland clearly discloses:

defect detection means [a defect scan filter, fig. fig. 7, unit D70] [of] for detecting a defect on said recording medium based on the data reproduced from said recording medium; wherein said window generation means changes the width of said synchronization detection window signal at least for a period of time during which said defect is detected [col. 10, lines 50-65].

Both Nishikawa and Foland are interested in recording and reproducing adapt from a storage medium, both are detecting synchronization signal.

One of ordinary skill in the art at the time of invention would have realized that the system of Nishikawa would have been sensitive errors that are produced due to various causes and this may cause system failures and it would have been useful to monitor the errors due to defects and correct them.

Therefore, it would have been obvious to have used a defect detection means in the system of Nishikawa as taught by Foland because one would be motivated to reduce noise in the system of Nishikawa by estimating the bit error rate of the storage system, predict defects in order to prevent system failures and thus avoid using expensive measuring equipment thus saving money and increase reliability of the system [col. 5, lines 4-16; Foland].

Art Unit: 2655

9. The aforementioned claim 12, recites the following elements, inter alia, disclosed in Foland:

said defect detection means determines the type and/or size [col. 10, line 53] of said defect and said window generation means changes the quantity of a change in the width of said synchronization detection window signal according to said determined type and/or size of said defect [col. 10, lines 50-65].

10. The aforementioned claim 15, recites the following elements, inter alia, disclosed in Foland:

said synchronization signal detection means changes said criteria for detecting said synchronization signal according to the detection of said defect [col. 10, lines 50-65].

NOTE: Different type of defects inherently require different criteria of detection and Foland does detect different types of defects.

11. The aforementioned claim 19, recites the following elements, inter alia, disclosed in Nishikawa:

said window generation means comprises a rewritable register [fig. 2, unit 23] and changes the width of said synchronization detection window signal by a width set in said register [paragraph 27-30, EXAMPLE].

12. The aforementioned claim 21, recites the following elements, inter alia, disclosed in Masahiko:

said defect detection means analyzes the envelope of an RF signal [signal 35] read from said storage medium to detect said defect [paragraph 27-30, EXAMPLE].

13. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 26 and no art rejection will be made in this office action regarding the claims 26, due to the speculation required to interpret the claims because of their indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs as noted above (see In re Steele, 134 USPQ 292).

Allowable Subject Matter

14. Claims 13-14 are objected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

NOTE: Claims 13-14 are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose a data reproduction apparatus which includes a window generation means to change window width of sync window “for a predetermined period of time after the detection of said defect ends”. It is noted that the closest prior art, Nishikawa shows a similar apparatus which has window and sync signals. However Nishikawa fails to disclose a time delay after detection of defect ends as criteria as claimed.

Other prior art cited

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Gosc et al. (US. Patent 5,274,676) “Multi-standard synchronizing”.
- b. Clay et al. (US. patent 4,791,622) “Optical data format”.
- c. Malone (US. patent 6,181,497) “System and method”.

Contact Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young can be reached on (571) 272-7582.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

A handwritten signature in black ink, appearing to read 'G. R. Patel', with a long horizontal stroke extending to the right.

Gautam R. Patel
Primary Examiner
Group Art Unit 2655

September 10, 2005